UTAH CTE SKILL CERTIFICATE PROGRAM

CAD DRAFTING

STUDENT PERFORMANCE EVALUATION

TEST #542

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student **must be evaluated** on the required performance standards. Performance standards may be completed and **evaluated anytime during the course**.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
  - 1= highly competent — Successfully demonstrated without supervision
  - 2= moderately competent — Successfully demonstrated with limited supervision
  - 3= limited competence — Demonstrated with close supervision
  - 4= not competent — Demonstration requires direct instruction and supervision
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
- The **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
- The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more "N's"** on the performance standards.
- The signed performance evaluation sheet(s) **MUST** be kept in the teachers' file for two years.
- A copy is also kept on file with the school's ATE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on ALL performance standards and 80% on the written test will be issued an ATE Skill Certificate.

151302-01 The student will be able to use and care for computer hardware.	**1**	**2**	**3**	**4**
	Demonstrate the proper care of equipment.			
	Operate and adjust input-output devices (printers, plotters).			
	Use correct procedures for the handling and operation of storage media.			
	Use correct procedures for the startup and shutdown of workstations such as the correct procedure to exit software.			
	Adjust monitor controls for maximum comfort and usability.			

151302-02 The student will be able to understanding physical and safety factors.	1	2	3	4
	Demonstrate an understanding of ergonomic considerations - Position the screen, chair, keyboard, and lighting for comfort and to ensure good health and posture.			
	Demonstrate personal safety - Remove any electrical or mechanical hazards.			

151302-03 The student will be able to understand and use the computer operating system.	**1**	**2**	**3**	**4**
	Start and exit a software program as required - Gain access into CAD software with correct prior configuration. Use reference manuals, library materials, and textbooks.			
	Demonstrate proper file management techniques - Use the correct operating system to copy, delete, and rename files, and check disks. Make correct file backups.			
	Format floppy disks - Use the correct procedure to format 3.5" floppy disks.			
	Translate, import, and export data files using different formats - Use the correct procedure to import/export: txt, iges, dxf files.			
	Use online help.			
	Save drawings to the storage device - Use the correct technique in storing drawings to the hard drive and floppy drive.			

151302-04 The student will be able to understand and use basic CAD drafting skills.	**1**	**2**	**3**	**4**
	Use correct media and related drafting materials - Use correct papers, vellum, mylar, plotter pens, toner, and cartridges.			
	Use and know correct geometric construction techniques; i.e., tangencies to arc, circles, lines, polygons, ellipses, lines to quadrants, parabolic, ogee curves, and spline curves - Use cartesian coordinates, absolute, polar, and relative to create drawings.			
	Use basic measuring systems - Use decimals, fractions, feet and inches, and metric engineering measurements.			
	Add correct annotation to drawings - Use correct lettering techniques and correct text sizes and styles.			
	Identify and use correct line styles and line widths on drawings.			
	Prepare title blocks for different drafting formats.			
	Apply metric and/or dual dimensions to drawing with ANSI Y14.5 standards.			
	Reproduce originals using different methods - Plot to scale and use correct plot specs. Plot drawings with correct line widths. Plot on different media, pens, plotters, and printers.			
	Create freehand technical sketches.			

151302-05 The student will be able to create drawings using a CAD system.	1	2	3	4
Create new drawings - Create and place appropriate orthographic views. Create and place appropriate auxiliary views. Create and place appropriate section views. Identify and create axonometric drawings; i.e., isometric, dimetric, and trimetric. Identify and create oblique drawings; i.e., cabinet and cavalier				
Perform a drawing setup - Use a setup for decimal inches, feet, engineer, and degree of precision. Make a setup for different-sized work areas and scale the drawing per software package.				
Use and control accuracy enhancement tools - Use snap, x,y,z, entity, grid, and positioning methods.				
Identify and use appropriate symbol libraries.				

151302-06 The student will be able to edit drawings using a CAD system.	1	2	3	4
Utilize geometry editing/modify commands - Use trim, extend, fillet, scale, stretch, offset, rotate, mirror, pedit, and ddmodify.				
Utilize non-geometry editing commands - Edit text, drawing format, and spelling.				
Use and change properties.				

151302-07 The student will be able to manipulate drawings using a CAD system.	1	2	3	4
Control coordinates and display scale. Move the origin to assist in drawing. Use control coordinates and display scale.				
Control entity properties - Use line types, color, line, and widths.				
Using viewing commands - Use dynamic, rotation, zooming, panning, and window.				
Use standard parts and/or symbol libraries - Insert standard parts and symbols into the drawing.				
Plot drawings on media using the correct layout and scale, line width, and legible text per ANSI Y14.5 standards.				
Use layering techniques.				
Use grouping techniques.				
Minimize a drawing file.				

151302-08 The student will be able to analyze drawings using a CAD system.	1	2	3	4
Use query commands to interrogate the database - Use distance, list, status, area, dblist, time, entity characteristics, and save time.				

151302-09 The student will be able to dimension drawings using a CAD system.	1	2	3	4
Apply dimensioning rules correctly and comply with ansi y14.5 standards - Avoid redundant dimensions. Avoid dimensioning to hidden lines. Place dimensions on most descriptive views.				
Use correct dimension line terminators - Use arrowhead, slashes, and ticks when dimensioning.				
Dimension objects - Place dimensions on view in compliance with ansi y14.5 standards. Dimension lines, angles, arcs, pyramids, and circular objects.				
Dimension complex objects; e.g., spheres, cylinders, and tapers - Dimension features from center lines, lines of symmetry, theoretical points, and of intersection. Use appropriate dual dimensioning standards. Use correct size and location dimensions. Use correct dimension variable settings. Use cartesian, polar, and datum dimensions. Use ordinate dimensions; e.g., tabular and baseline dimensions.				

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Instructor Signature: _____ Date: _____

Student Signature: _____ Date : _____

School: _____